GUN VIOLENCE RESEARCH PROJECT

I. EXECUTIVE SUMMARY

This report used an evidence-based public health approach to better understand, prevent, and reduce the alarming rate of gun violence in both the state of Illinois and the nation by focusing on the root causes and the social/infrastructural contributing factors. The learning of root causes led to the development of policy recommendations with the goal of long-term prevention of gun violence.

More than 33,000 people are fatally shot in the US each year. This report shares policy recommendations based on the top two reasons people lose their lives due to gun violence: gun suicide and gun homicide. This is followed by recommendations on addressing mass shooting (school shootings) and lastly, the report ends with the latest developments on gun related policies in the state of Illinois.

II. BACKGROUND OF THE IPHA INITIATIVE

In Fall 2017, the IPHA leadership requested Amanda Mehl (local public health administrator, member of IPHA, and officer of the IPHA Executive Council) to moderate a discussion surrounding the 2013 IPHA Resolution on Gun Violence and Public Health. After discussing basic research surrounding the gun violence issues and listening to the feedback of many IPHA members, it became clear that this was not going to be a one session redrafting of the 2013 resolution. There were broader issues to address requiring a more in-depth and systematic process with an examination of existing research and root causes.

On February 23rd 2018, in a conference call with IPHA Executive Director Tom Hughes, IPHA President Cathy Ferguson-Allen, and IPHA President-Elect Toni Corona, a decision to bring aboard a graduate level intern was made. The goal was for the graduate intern to review existing data, examine trends, compare peer-reviewed literature on the topic, and share a summarized report at the end of the internship. On May 1st 2018, after a thorough interview process involving several candidates, Vinoadharen Nair Das, a doctoral student in Social Psychology from University of Illinois at Chicago (UIC) was offered the IPHA Summer 2018 Graduate Intern position.
III. LAYING THE GROUNDWORK FOR STRATEGIC PLANNING

Position Statement: Gun violence is intertwined with other social, economic, behavioral, and cultural factors that are also at the root of necessary public health investigation and response. IPHA respects diverse perspectives and believes in everyone’s right to achieve a healthy life. Regardless of the complexity of opinions surrounding owning and/or carrying guns and laws about guns, IPHA prioritizes the need to find common ground on this issue while employing a comprehensive approach to reduce gun violence.

Mission: The IPHA Gun Violence Research Project aims to use an evidence-based public health approach to better understand, prevent, and reduce the alarming rate of gun violence in both the state of Illinois and the nation by examining the root causes and the social/infrastructural contributing factors.

Vision: IPHA will work with the public health system and its leadership to create an environment where every individual feels safer and less threatened by gun violence and ensuring our children feel safer going to school.

Values

- **Responsiveness:** Treating gun violence as a public health crisis, similar to an infectious disease, spreading to epidemic proportions in many communities and requiring urgent responses. Gun violence threatens the health and wellness of any community.
- **Prevention:** Taking a population-based approach to this public health issue, focusing on primary prevention when possible and risk reduction when necessary.
- **Research:** Formulating data collection systems, analyzing the results to identify significant contributing factors that increase risk of gun violence, and examining the characteristics and impact to its most vulnerable populations.
- **Infrastructure:** Developing a systematic approach through community planning and infrastructure to address and reduce the rates of gun violence.
- **Education:** Creating more awareness and invoking shared responsibility among all stakeholders around the issue of gun violence as a public health issue and focusing less on blame.
- **Collaboration:** Being broad and inclusive of diverse perspectives on these issues, bringing in as many groups, people, and ideas as possible.
- **Advocacy:** Examining laws and/or policies that contribute to or deter gun violence in any community.
- **Equity:** Recognizing that gun violence disproportionately affects minorities and low income communities and aspires to improve the health equity within communities.

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1 Health equity is the right of every individual regardless of race, ethnicity, gender, income, sexual orientation, education background, neighborhood, and political orientation to live a safe and healthy life.
IV. COMPILING RELEVANT INFORMATION: ENVIRONMENTAL SCAN

Initially, there were difficulties in terms of where to focus our efforts due to the overwhelming number of topics within the subject of gun violence. Following the trend of highly publicized topics, we did begin to explore issues related to mental health or even gun-related policies. However, after further discussion, we decided to narrow down the scope of the project by focusing on the top causes of gun violence death. This led to the information about gun suicide and gun homicide being the top two causes of death due to gun violence. Taking into account the rising concern about the prevalence of mass shooting incidences, we made sure to consider this topic as well. With that, it was decided that we will develop policy recommendations to prevent gun suicide, gun homicide, and mass shooting.

In the process of reviewing existing data through empirical articles or websites incorporating evidence-based data, we decided to refer to evidence-based technical packages published by the Centers for Disease Control and Prevention (CDC). Recommendations to prevent gun suicide by focusing on suicide in general was made by referring to Preventing Suicide: A Technical Package of Policy, Programs, and Practices. Recommendations to prevent gun homicide by focusing on youth violence was made by referring to A Comprehensive Technical Package for the Prevention of Youth Violence and Associated Risk Behaviors. Due to the lack of evidence-based recommendations on addressing mass shooting, we referred to the Department of Homeland Security’s K-12 School Security Guide for Preventing and Protecting against Gun Violence (2018). Lastly, the information we share about gun-related policies in the state of Illinois were retrieved from the Giffords Law Center to Prevent Gun Violence.
V. ANALYZING RESULTS & SELECTING STRATEGIC PRIORITIES

After the environmental scan, we were able to provide a more contextual description about the extent of gun suicide and gun homicide death. Data showed that nearly two-thirds of gun deaths are suicides. More than 85% of gun suicide victims are males and more than half of all gun suicides involve men age 45 and older. The following are risk factors for suicide (Brodsky, Spruch-Feiner, & Stanley, 2018).

**Risk factors for suicide:**
- Psychiatric diagnoses, major depression, bipolar disorder, schizophrenia, Borderline Personality Disorder (BPD), Post-Traumatic Stress Disorder (PTSD), substance use/abuse, and eating disorders.
- Abuse history.
- Recent activating events: Interpersonal loss, financial, or medical problems.
- History of mental health treatment non-adherence.
- Access to lethal means.

Another third of all gun deaths (approximately 12,000 a year) are due to homicide. More than half of the homicide victims are young men (two-thirds of whom are Black).

We agreed that any effective effort to prevent and reduce gun suicide must be compatible with efforts to reduce suicide in general. In terms of preventing gun homicide, we focused on early prevention by targeting the early age population rather than only young men. The following section presents a synthesis of recommendations with the goal of preventing both gun suicide and gun homicide by focusing on the root causes of the broad suicide problem and also youth violence. The next section is followed by recommendations on addressing mass shooting (school shootings) and lastly, the latest development on gun related policies in the state of Illinois is shared.
VI. POLICY RECOMMENDATIONS

In this section, we present 20 sets of recommendations. This begins with eight recommendations for preventing gun suicide (suicide prevention); five recommendations for preventing gun homicide (youth violence prevention); and lastly, we provide seven recommendations to prevent mass shooting, specifically in the context of schools.

GUN SUICIDE (SUICIDE PREVENTION)

#1 Strengthen Economic Support – Unemployment Benefits
Economic stress such as job loss and inability to cover expenses may increase one’s risk for suicide. Our recommendation is for states, particularly our state of Illinois to increase the amount and duration of unemployment benefits based on the Federal State Unemployment Insurance Program. In addition to greater amount of benefits, it is important to continuously support unemployed individuals since longer periods of unemployment are associated with higher suicide rates (Classen & Dunn, 2012).

#2 Improve Access of Mental Health or Suicide Care (Mental Health Parity)
This involves equal coverage of mental health services in health insurance plans similar to other health concerns (i.e., mental health parity). Lang (2013) showed that states enacting mental health parity laws were associated with a 5% reduction in suicide rates. Across 29 states, this equated to the prevention of 592 suicides per year (Lang, 2013).

#3 Reduce Provider Shortages in Underserved Areas
More than 85 million Americans, especially among low-income urban and rural communities, live in areas lacking access to mental health providers. We need to provide more incentives to attract mental health care providers to underserved areas. For example, the National Health Service Corps (NHSC) offers financial incentives to achieve this goal (NHSC, 2017). Another example is to encourage individuals to work in mental health fields in exchange for student loan debt repayment. Alternative methods of providing care must be considered. For instance, Telemental Health (TMH) refers to using telephone, video, and web-based technologies to provide psychological care (Hailey, Roine, & Ohinmaa, 2008). A systematic review of good quality TMH services were found to be effective in treating mental health conditions (Hailey, Roine, & Ohinmaa, 2008).

#4 Identify and Support People at Risk of Suicide
There needs to be gatekeeper training, better crisis intervention, and also treatment for people at risk of suicide or to prevent re-attempts. Gatekeeper training is needed for parents, teachers, other school staff, coaches, and emergency responders. An example of a program is the Applied Suicide Intervention Skills Training (ASIST). Within the National Suicide Prevention Lifeline, callers who spoke to counselors trained with ASIST were less likely to feel depressed, suicidal, and overwhelmed compared to non-ASIST counselors (Gould et al., 2013).

#5 Safe Storage Practices
Safe storage practices can decrease suicide risk. This includes education about storing firearms. Storing firearms unloaded, separate from ammunition, in a locked place or secured with a safety device was protective of suicide attempts among adolescents (Grossman et al., 2005). A recent
systematic review showed that providing safety devices increased safe storage practices compared to counseling or providing the financial incentive to attain safety devices (Rowhani-Rahbar et al., 2016). Other lethal means such as sharp objects and medications need to be handled carefully too especially for individuals high with suicide risk.

#6 Promote Connectedness through Peer Programs
Peer norm programs involve normalizing protective behaviors such as reaching out for help and talking to a trusted adult (for students). Programs are typically delivered in school but can be applied to community settings. Across 18 high schools, Sources of Strength, a student peer program (https://sourcesofstrength.org/), improved adaptive norms regarding suicide, connectedness to adults, and school engagement (Wyman, 2010). Peer leaders were more likely to report a suicidal friend to an adult and also reported a decrease in unhealthy coping behaviors themselves compared to untrained leaders (Wyman, 2010).

#7 Advocate Social-Emotional Learning (SEL) Programs
These are programs educating students to improve communication, problem solving, emotion regulation, conflict resolution, help seeking and coping behaviors. Examples of evidence-based SEL programs:
- Youth Aware of Mental Health Program (YAM) developed for teenagers, aged 14-16. Students in this program were less likely to commit suicide or have suicidal ideations compared to a control group (Wasserman et al., 2015).
- Good Behavior Game for elementary school children aged 6-10 (Wilcox, 2008).

#8 More Appropriate Media Reporting of Suicide
Proper reporting of suicide should adhere to the Recommendations for Reporting on Suicide (http://www.reportingonsuicide.org). Reporting suicide in a negative way (e.g., stating suicide myths and repetition) have harmful effects on suicide, but reporting on positive coping skills in the face of adversity can also demonstrate protective effects against suicide (Niederkrotenthaler et al., 2010).
GUN HOMICIDE (YOUTH VIOLENCE PREVENTION)

#1 Increase Early Childhood Home Visitation
These are programs delivered by nurses, professionals, or paraprofessionals to provide information and support to caregivers about child health and development (Avellar et al., 2016). Many of these programs are offered to low-income mothers to improve their health equity (Avellar et al., 2016). An example of evidence-based early childhood home visitation program:

- Families in the Nurse Family Partnership (NFP) program had 45% fewer childhood behavior problems and parental coping issues relative to families not participating in NFP. Youth participating by age 15 had fewer arrests, convictions, and violations of probation (Olds et al., 1997; Olds et al., 1998). Participating in NFP was associated with a reduction in child abuse, neglect and also substance abuse by both parents and youth (Olds et al., 1997; Olds et al., 1998).

#2 Encourage Preschool Enrichment through Parental Engagement
These programs meant to help lower income families can reduce early childhood problems such as aggression, child abuse and neglect, and also have long-term benefits on the relationship between parents and youth, perpetration of violence and crime, and also youth’s academic achievement. Parental involvement is emphasized as the determining factor in the success of a child. Examples of evidence-based programs:

- Child Parent Centers (CPCs). Relative to youths in other programs, low-income youth who participated in CPC had significantly lower rates of juvenile arrest, violent arrests, and multiple arrests (Reynolds, Temple, Robertson, & Mann, 2001).
- Early Head Start (EHS). Compared to other children, 3-year old children of families participating in EHS showed less aggressive behavior, better language and cognitive skills, and also had emotionally supportive parents (Love et al., 2005).

#3 Advocate Social-Emotional Learning (SEL) Programs
Similar to the previous section, SEL programs include guiding teachers and school personnel in terms of improving the character development and social skills of students and also improving the positive school climate. One example of classroom-based SEL program is Promoting Alternative Thinking Strategies (PATHS).

- A randomized controlled trial showed that participants in PATHS were better at regulating emotions, understanding social problems, and using less aggression when it comes to conflict solution (Greenberg & Kusché, 2006). At a one-year follow up, participants showed both fewer conduct problems and symptoms of depression (Greenberg & Kusché, 2006).

#4 Promote After-School Programs
Youth crime and violence peak between 3 to 6pm so after-school programs providing supervision and improving social engagement of youth can serve as a protective factor especially among youth living in high crime areas (Sickmund & Puzzanchera, 2014). One example is the After School Matters (ASM) program in Chicago.

- ASM offers apprenticeship in science, technology, communication, sports, and many more to high-school students in Chicago Public Schools (CPS) (After School Matters, 2016). Students in ASM had fewer course failures, higher graduation rates, and lower dropout rates by age 18 compared to non-ASM students (Goerge, Cusick, Wasserman, &
Gladden, 2007). A randomized controlled trial among 10 lower-income racially diverse high schools found that youth in ASM missed fewer school days, had better self-regulation, and were less likely to participate in gang-related activity compared to youth in the control groups (Hirsch, Hedges, Stawicki, & Mekinda, 2011).

#5 Provide Treatment to Reduce the Harm of Violence Exposures
These interventions can help youth process and manage exposure to trauma while aiming to learn effective coping strategies. The goal of treatment would be to reduce or break the negative cycle of violence among youth. Two examples of interventions:

- Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) has been shown to reduce PTSD, depression, behavioral problems, and improve positive parenting practices (Cary & McMillen, 2012; de Arellano et al., 2014)
- Cognitive Behavioral Intervention for Trauma in Schools (CBITS) designed for 10-15 year olds (Dorsey, Briggs, & Woods, 2011). This program focuses on reducing stigma and improving access to services among a range of populations (e.g., low income, immigrants, and racial minorities). CBITS has been shown to improve PTSD symptoms, depression, and parent-reported behavioral issues (Stein et al., 2003).
MASS SHOOTING (SCHOOL SHOOTING PREVENTION)

As previously mentioned, due to the lack of evidence-based recommendations on addressing mass shooting, we referred to the Department of Homeland Security’s K-12 School Security Guide for Preventing and Protecting against Gun Violence (2018). These seven recommendations are tailored specifically to school settings but the information can be adapted to other settings as well.

#1 Reach out and develop relationships in your community such as local law enforcement
This is to speed up the response when urgent situations occur. Law enforcement could also assist with active shooter drills.

#2 Plan how to handle a security event, including having a team in charge of organization
This involves learning from other mass shooting events and discussing prevention and protection for your respective school or community.

#3 Provide training resources and exercise your plans often
Exercising through drills can validate the efficacy of the plan. Additionally, doing drills will allow school staff and students to provide feedback (after-action improvement plan) to improve responses. To avoid being overwhelming, responses should be broken down into manageable sequences.

#4 Encourage reporting of suspicious activity
“If you see something, say something”. This can be improved by training staff and students on what is considered suspicious to ensure better reporting and response from authorities.

#5 Pay attention to access and functional needs of people with disabilities
This includes people who are deaf or hard of hearing, those with visual impairments or are blind, individuals with limited mobility, temporary disabilities, and also people with limited English proficiency.

#6 Provide opportunities for students to receive support from licensed or certified mental health professionals
This is for students experiencing any mental health problems ranging from depression and anxiety to problems related to violence.

#7 Promote social and emotional competencies among students
To help students improve awareness of their own and others’ emotions, create better relationships and make better decisions. Students can also improve persistence and their reactions to stress.

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2 For more information about teaching social and emotional competencies, visit http://safesupportivelearning.ed.gov. For additional information on how social and emotional learning may be integrated into a multi-tiered framework, visit http://www.pbis.org.
Below are potential behavioral warning signs\(^3\) for school members to track and/or report:

- Increasingly erratic, unsafe, or aggressive behaviors
- Hostile feelings of injustice or perceived wrongdoing
- Drug and alcohol abuse
- Marginalization or distancing from friends and colleagues
- Changes in performance at work or school
- Sudden and dramatic changes in home life or in personality
- Pending civil or criminal litigation
- Observable grievances with threats and plans of retribution

**GUN LAWS IN ILLINOIS**

According to the *Giffords Law Center to Prevent Gun Violence*, the state of Illinois has a gun law grade of B+ in the range between an A to F. When measuring across the 50 states with the strongest to weakest gun laws, Illinois ranked 8\(^{th}\) for the strength of their gun laws. Illinois placed 34\(^{th}\) for gun death rank ranging from fewest deaths per capita to most deaths per capita. The gun violence in Illinois is driven by trafficking from neighboring states with weaker gun laws such as Indiana. Below are descriptions on the laws that Illinois enacted successfully followed by gun laws that need to be improved.

**What Illinois does right**

- Requires all individuals without concealed carry permit to obtain 10-year license (FOID card), which requires background check.
- Imposes waiting periods between the purchase and actual transfer of a firearm to a purchaser (*72-hour waiting period recently passed*).
- Child access prevention law (prohibits leaving a firearm unlocked and accessible to a minor under the age of 14).
- Firearm owners are required to report lost or stolen firearms.
- Firearm Restraining Order (*Passed in 2018*). This law allows the police to remove guns from individuals judged in a court to be posing a threat.

**How to strengthen Illinois gun laws?**

- Require licensing and regulation of gun dealers.
- Require firearm registration.
- Ban assault weapons and high capacity magazines
- Restrict purchase of multiple firearms
- Give law enforcement discretion to deny concealed carry permits
- Allow local regulation of firearms

\(^3\) Excerpt adapted from *Pathway to Violence Fact Sheet*, DHS (2017).
VII. NEXT STEPS & CONCLUSIONS

Future researchers could answer the following questions:

- What is the status of funding for Social Emotional Learning (SEL) programs in the state of Illinois?
- What schools and districts do not have access to SEL programs in the state of Illinois?
- What are the disproportionate funding statuses for different schools and districts when it comes to promoting SEL programs?
- What are steps taken to ensure accountability and outcome evaluation for SEL program effectiveness?
- What are the requirements, if any, in Illinois for mental health professionals in schools?
- What is the amount that Illinois residents receive as unemployment benefits relative to other states in the country?
- How long do unemployed Illinois residents receive benefits compared to other states in the country?
- What areas in Illinois or which particular populations live in areas lacking access to mental health care providers? Where are these areas?
- What are financially practical and logistically effective ways for us to disseminate safe storage devices to gun owners?

It is important for researchers and policy makers to examine the implications of gun suicide and gun homicide before making policy recommendations related to mass shooting to ensure more generalizable benefits. The most important recommendation is that more funding and research is needed to prevent future deaths due to gun violence, be it gun suicide, gun homicide, or mass shooting.

Taking into account the short period of 12-weeks and the limited evidence-based program of research existing related to preventing gun violence, this project represented making progress. Rather than focusing our recommendations on topics that are highly publicized and potentially politicized, we allocated our resources to focus on a universal prevention approach where recommendations were made on topics that have common ground. For instance, the promotion and development of social and emotional learning (SEL) programs at schools. Regardless of opinions on various topics, it cannot be denied that educating students about being emotionally aware and also how to cope with emotional distress in healthy ways can be extremely beneficial. Future work should also incorporate recommendations that can encourage mutual participation from all sides despite potential political divides.

Lastly, to end this report, we recommend that an IPHA workgroup should be formed to take over the follow-through on this project. We will be partnering with Nick Brady to take a trauma informed approach; we will be working with Susan Cheng on Mass Shooting Data; and we will collaborate with Leslie Helmcamp and Rebecca Levin from Lurie Children’s Hospital of Chicago for gun policy and advocacy work.
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Vinoodharen Nair Das
IPHA Summer 2018 Graduate Intern
References


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